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## A STUDY OF THE EMPHASIS ON VARIOUS PHASES OF READING INSTRUCTION IN TWO CITIES

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Teachers consciously or unconsciously emphasize certain phases of instruction more than other phases. This may be due to one or more of a variety of causes, such as a conscious attempt to improve the quality of instruction along one or more specific lines, recently stimulated interest in certain phases of classroom work, special preference for given phases of a subject, or habitual modes of procedure in teaching. Very frequently certain phases of instruction receive special emphasis throughout a school or a city system owing to the educational view of the superintendent or supervisor, to new movements initiated in harmony with progressive ideals, to demands made by the public, or to classroom practices which spread through observation by one teacher of the practices of those about her. Whatever the cause may be, the final results of instruction reflect to a large extent these special points of emphasis. If the points of emphasis have been wisely chosen, the results will show rapid development by the pupils along highly desirable lines; if the points of emphasis have been poorly chosen, the results will be open to serious criticism.

The recent studies of reading made in connection with the Cleveland Survey and the St. Louis Survey give striking illustrations of the fact that cities differ widely in their emphasis on various phases of reading instruction. They show, furthermore, the influence which differences in instruction have upon the quality of the results. It is the purpose of this article to present these facts to the readers of the *Elementary School Journal* with the hope that their discussion may further the critical attitude which hundreds of teachers are taking toward the more important problems of teaching. The results secured in these studies enable us to compare the relative emphasis in Cleveland and St. Louis on

such phases of teaching as the mechanics of oral reading, the rate of silent reading, and the comprehension of what is read. In connection with the mechanics of oral reading it has been possible to compare the relative emphasis on speed and accuracy of pronunciation. Inasmuch as the same tests were used in these studies under approximately the same conditions during the same month of the school year, it will be possible to make rigid comparisons of the results secured.

The oral-reading test which was used consisted of a series of twelve paragraphs arranged in the order of increasing difficulty. The tests were given to the pupils individually by a principal, or by a special teacher who had been trained for the work. As a pupil read, the teacher recorded the time required to read each paragraph, together with the number and character of the errors which were made. A pupil continued to read until he had made seven or more errors in each of two paragraphs. By means of a system of scoring based on the time required to read and on the number of errors, it was possible to represent the achievement of a pupil or a class in numerical terms. Inasmuch as the primary purpose of this article is to discuss the results of the investigations rather than the technique of giving the tests and scoring the results, additional details of the latter will be omitted.<sup>1</sup>

The average oral-reading scores for Cleveland and for St. Louis are presented for each grade in Chart I. A word of explanation is necessary in order that the chart may be readily understood. Ability to read a certain paragraph without error means less on the part of a child in the upper grades than on the part of a child in the lower grades. Grades will have to be compared with each other, therefore, by representing different levels of expectation. These different levels are expressed graphically in the chart by the relative positions of the vertical lines. Each line represents the scale for a grade and begins below at the point where

<sup>1</sup> A complete discussion of the reading investigation carried on in Cleveland is given in the Cleveland Survey monograph entitled, *Measuring the Work of the Public Schools*, by Dr. Charles H. Judd. The discussion of the St. Louis reading investigation will be published in the near future by the Board of Education of St. Louis.

Gray's "Standardized Tests in Oral and Silent Reading" were discussed in detail in the February number of the *Elementary School Journal* of the current year.

a score of 10 should be recorded and ends above at the point where a score of 70 belongs for that grade. The full-drawn oblique line near the middle of the chart represents the average score of all the Cleveland schools which were tested. The dotted line above the Cleveland record represents the average score of all the St. Louis schools which were tested. The chart shows very clearly that from the first to the eighth grades, inclusive, St. Louis

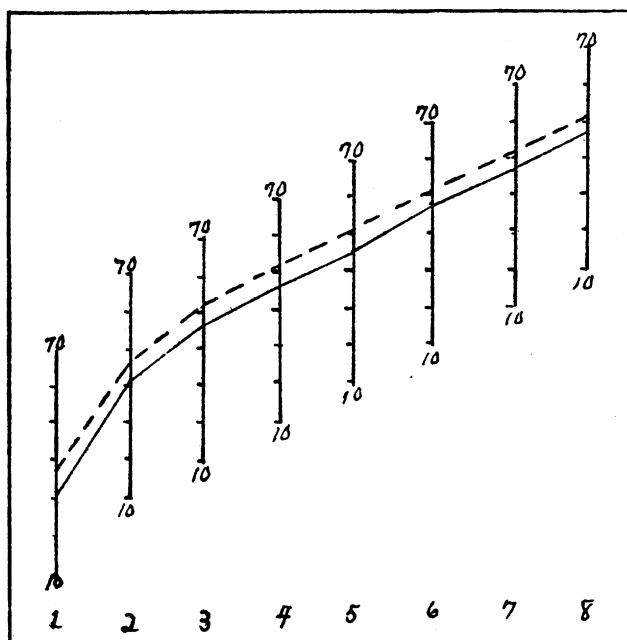


CHART I.—Average oral-reading scores for 10,526 St. Louis pupils and for 2,193 Cleveland pupils.

pupils have attained a higher level of achievement in the mechanics of oral reading than have Cleveland pupils. The amount of this superiority represents the normal growth which would take place in from one-eighth to one-half of a year, depending on the grade which is considered. It is fair to assume either that greater emphasis is laid on oral reading in St. Louis, or that the effort put forth secures relatively better results.

An analysis of the results secured by St. Louis and Cleveland throws significant light upon the cause for differences in the levels

of achievement attained by different cities. Since the oral-reading scores are based on the number of seconds required to read each paragraph, together with the number of errors made, differences in achievement must be attributed to differences in ability which pupils exhibit in one or both of these phases of oral reading. Table I presents the average number of errors made and the average number of seconds required by the pupils of St. Louis and of Cleveland in reading paragraph 1 and paragraph 4 of the test. The entries in the table may be read as follows: in reading paragraph 1, 223 first-grade pupils of Cleveland required on the average 35.13 seconds, and made 1.84 errors per pupil, while 315 first-grade pupils of St. Louis required on the average 43.42 seconds to read paragraph 1 and made 1.81 errors per pupil.

A word of explanation is necessary concerning the importance of rate and accuracy in oral reading before any conclusions can be drawn concerning the relative efficiency of Cleveland and St. Louis. Table I shows that first-grade pupils in Cleveland read paragraph 1 more rapidly than first-grade pupils of St. Louis. Throughout the grades the superiority of Cleveland in rate of reading is maintained. St. Louis, on the other hand, secures a higher degree of accuracy in pronunciation in the first grade and maintains this superiority throughout the grades. This comparison gives evidence of a difference in emphasis in the two cities. Classroom observations revealed differences in practice in regard to rate and accuracy. Cleveland believes that pupils should learn to associate the sight of a symbol with its meaning very quickly, and to this end makes extensive use of flash-card exercises in the lower grades. St. Louis, on the other hand, places accuracy above speed and permits the pupils to read more slowly. This greater deliberateness on the part of St. Louis pupils is shown even more clearly when one considers the records for paragraph 4. The superior results secured by St. Louis in accuracy are commendable. The superiority of Cleveland in rate suggests the possibility that St. Louis might profit by Cleveland's example in the earlier grades. If accuracy of pronunciation could be maintained and at the same time rate increased, the general level of achievement in St. Louis could be noticeably increased. The foregoing discussion reveals the fact

that an analysis of the results of teaching any subject such as oral reading is necessary in order to determine the lines along which constructive effort should be exerted.

TABLE I

AVERAGE RATE OF ORAL READING AND AVERAGE NUMBER OF ERRORS ON PARAGRAPH 1 AND PARAGRAPH 4 FOR CLEVELAND SCHOOLS AND FOR ST. LOUIS SCHOOLS

GRADE	CLEVELAND			ST. LOUIS		
	No. of Pupils	No. of Seconds	No. of Errors	No. of Pupils	No. of Seconds	No. of Errors

PARAGRAPH 1						
I. ....	223	35.13	1.84	315	43.42	1.81
II. ....	216	23.29	1.31	410	23.27	0.77
III. ....	328	17.78	0.72	325	19.21	0.57
IV. ....	323	15.75	0.65	281	15.62	0.37
V. ....	242	14.36	0.64	17	16.17	0.29
VI. ....	216	13.59	0.56	22	15.05	0.18
VII. ....	220	14.47	0.44	20	15.15	0.20
VIII. ....	193	13.44	0.41	20	16.10	0.10

PARAGRAPH 4						
I. ....	80	42.19	2.86	79	59.80	2.78
II. ....	258	30.63	2.26	365	33.12	1.77
III. ....	307	25.51	1.90	420	26.63	1.58
IV. ....	312	22.15	1.84	430	21.83	1.16
V. ....	231	19.98	1.71	407	21.15	1.11
VI. ....	208	17.94	1.59	395	19.49	0.94
VII. ....	221	17.68	1.37	388	17.66	0.93
VIII. ....	193	16.62	1.24	413	17.85	0.73

The silent-reading tests which were given consisted of three short selections of varying degrees of difficulty. The simplest selection was chosen for pupils of the second and third grades; a more difficult selection was used for pupils of the fourth, fifth, and sixth grades, and the most difficult selection for pupils of the seventh and eighth grades. Each selection used in the test was printed in three sections on a card. The middle section contained 100 words in the case of the easiest selection and 200 words in the case of the two more difficult selections. This middle section, in the case of each selection, contained the material upon which the time record was based. The section at the left of the middle section served a double purpose: first, it gave the pupil something

to read by way of preparation for the test part of the selection; secondly, it gave the tester an opportunity to determine the moment at which the reader moved his eyes from the bottom of the card to the top of the middle section where the time record was begun. The pupils were tested individually, and a record was secured of the number of seconds required to read the middle section. The average rate of the class was found by determining the average number of seconds required to read 100 words and then expressing this result in terms of the average number of words read per second.

The average rates by grades are presented graphically in Chart II for Cleveland, for St. Louis, and for thirteen other cities.

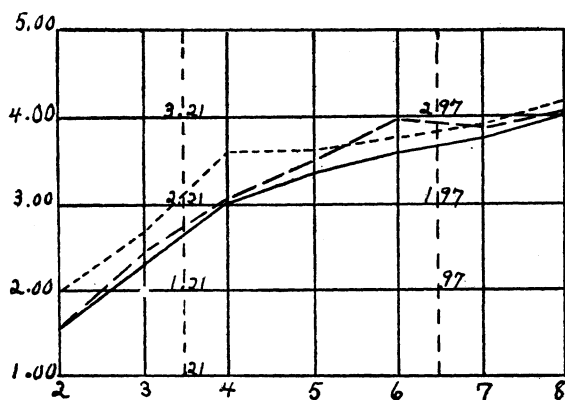


CHART II.—Rates in silent reading for 8,928 St. Louis pupils, for 1,831 Cleveland pupils, and for 2,654 pupils of thirteen other cities.

Since three selections were used in the silent-reading tests, two readjustments have been necessary in the chart. The points of these readjustments are between the third and fourth grades, and between the sixth and seventh grades. In Chart II, dotted vertical lines are drawn at each of these points. The numbers at the left of the chart indicate the number of words read per second in the easiest selection. The numbers on the line between the third and fourth grades indicate the equivalent number of words read per second when the second more difficult passage was used, and the numbers on the line between the sixth and seventh grades indicate the equivalent number of words read per second when

the most difficult passage was used. The numbers at the bottom of the chart indicate the various grades which were tested from the second to the eighth, inclusive. In Chart II, the rate at which the pupils of Cleveland read is represented by the dotted line; the rate at which the pupils of St. Louis read, by the broken line, and the average rate at which the pupils of thirteen other cities read, by the solid line. The chart shows that the pupils of Cleveland and of St. Louis read more rapidly than do the pupils of thirteen cities which have been tested under similar conditions. A comparison of the records of Cleveland and St. Louis shows that Cleveland is securing superior results on the average in all grades except the sixth. Such a comparison might result in a feeling of considerable satisfaction on the part of both Cleveland and St. Louis schools, were it not for the fact that a much higher level of attainment is possible, as evidenced by the records made in a number of schools. Very little attention has been given in the past to the rate of silent reading. As better methods are worked out for securing results in this phase of reading achievement, it may be found that the present attainment of these cities is below the level which might be secured through more skilful teaching.

Furthermore, it should be noted that the slower rate at which pupils in St. Louis read silently corresponds with the results discussed in earlier paragraphs, showing greater deliberateness in rate of oral reading, particularly in the lower grades. A careful study of individual records shows clearly that those pupils who are able to move forward quickly in oral reading are the pupils who read most rapidly silently. Fluency in oral reading is therefore a prerequisite to rapidity in silent reading. Since rate of silent reading is such an important factor in achievement during study-periods, special drill exercises should be given which will increase the rate at which pupils read silently. An analysis similar to the foregoing carried on in any city should be productive in revealing points of strength and weakness in the instruction which is given in oral reading.

At the time that the silent-reading tests were given, the ability of the pupils to master the thought of what they have read was tested. This was done by means of a written reproduction of what

had been read and by a series of ten questions in regard to specific points in the selection. A pupil's reproduction was scored by checking out all wrong statements, all irrelevant statements, and all repetitions. The words correctly reproduced were then counted. The reproduction score was determined by finding the ratio of the words correctly reproduced to the total number of words read. Each question answered correctly was given a grade of ten points. The reproduction score and the grade received for correctly answered questions were then averaged to secure a "quality" score.

The average quality scores for Cleveland, for St. Louis, and for thirteen other cities are compared in Chart III. Readjustments

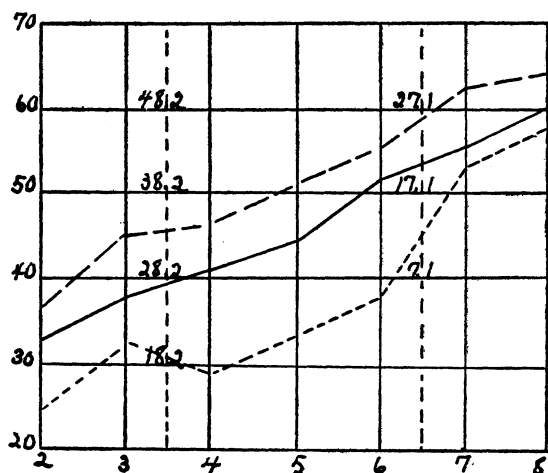


CHART III.—Average quality scores in silent reading for 8,928 St. Louis pupils, for 1,831 Cleveland pupils, and for 2,654 pupils of thirteen other cities.

appear in this chart similar to those described in connection with Chart II. Here again the broken line presents the results from St. Louis, the full-drawn line the result from other cities, and the dotted line the results from Cleveland. The chart shows that St. Louis attains a level of achievement in quality of silent reading which is distinctly above the average for thirteen cities, while Cleveland, on the other hand, has a level of achievement which is as distinctly and uniformly below the average. This compari-

son is impressive, and its significance cannot be disregarded. It means that of two cities which attain equally high results in rate of silent reading, the one gives effective emphasis to quality of reading, while the other fails to secure results which are at all comparable. The comparison shows clearly the need of additional emphasis on thoughtful mastery of the printed page on the part of Cleveland.

The foregoing comparisons have indicated points of strength and weakness in the results secured in teaching reading in Cleveland and St. Louis. They have indicated in a very striking way that certain phases of reading ability are emphasized more strongly in one city than in the other. Each city is superior in certain respects. The comparisons in the foregoing report should call to the attention of each city certain errors in emphasis which have characterized their instruction in reading. In addition, such comparisons indicate some of the lines along which intensive constructive effort must be expended in order to secure the highest degree of efficiency in instruction. They should suggest to the teachers of other cities the need of similar critical comparative studies of their own practices and results.